STATE OF MARYLAND
DHMH
Maryland Department of Health and Mental Hygiene
201 W. Preston Street • Baltimore, Maryland 21201
Martin O'Malley, Governor – Anthony G. Brown, Lt. Governor – Joshua M. Sharfstein, M.D., Secretary

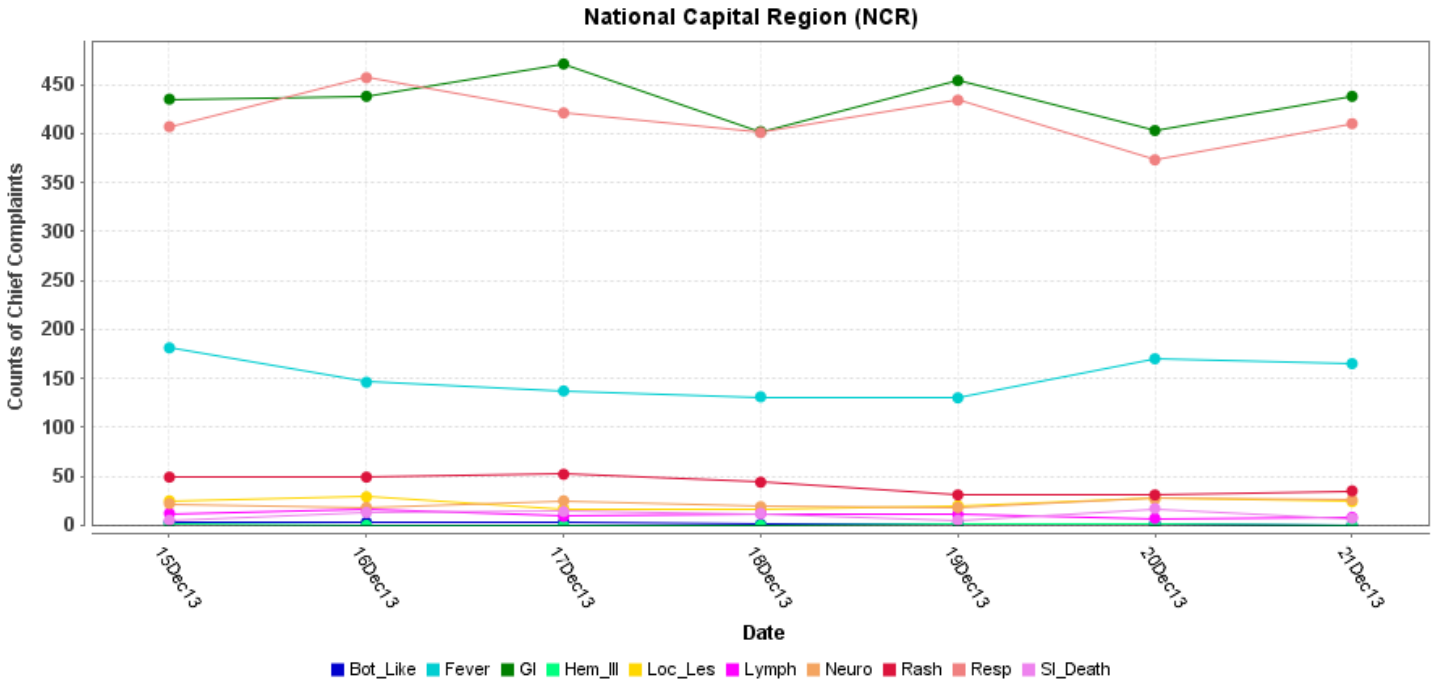
December 27, 2013

Public Health & Emergency Preparedness Bulletin: # 2013:51
Reporting for the week ending 12/21/13 (MMWR Week #51)

CURRENT HOMELAND SECURITY THREAT LEVELS

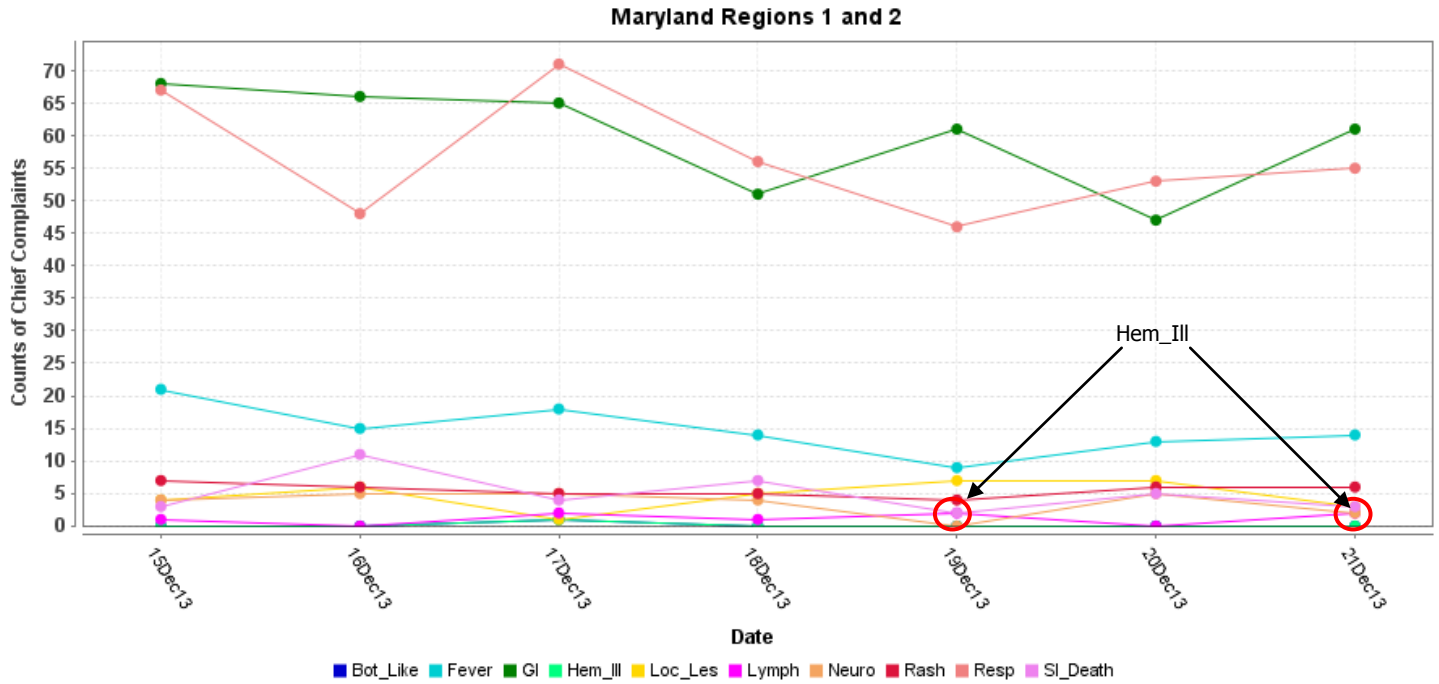
National: **No Active Alerts**
Maryland: **Level Four (MEMA status)**

SYNDROMIC SURVEILLANCE REPORTS
ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR uses syndrome categories consistent with CDC definitions.
Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

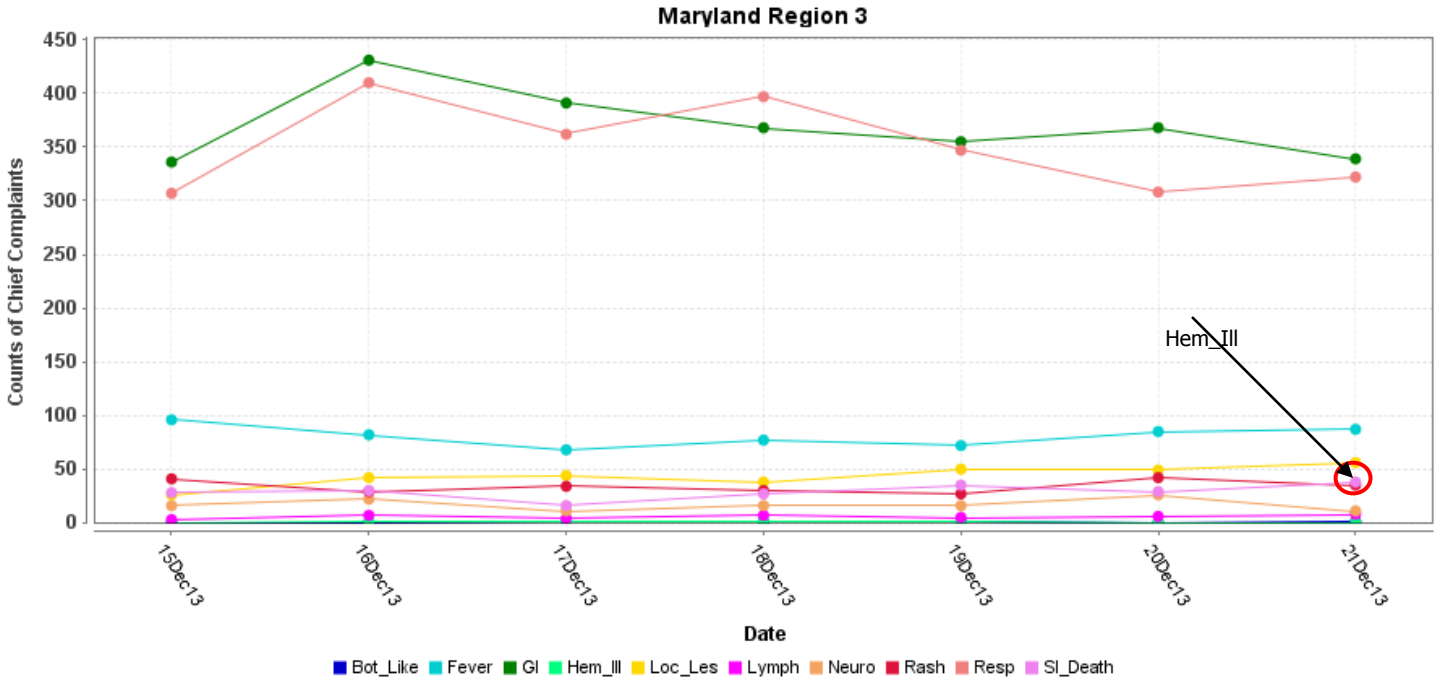


*Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

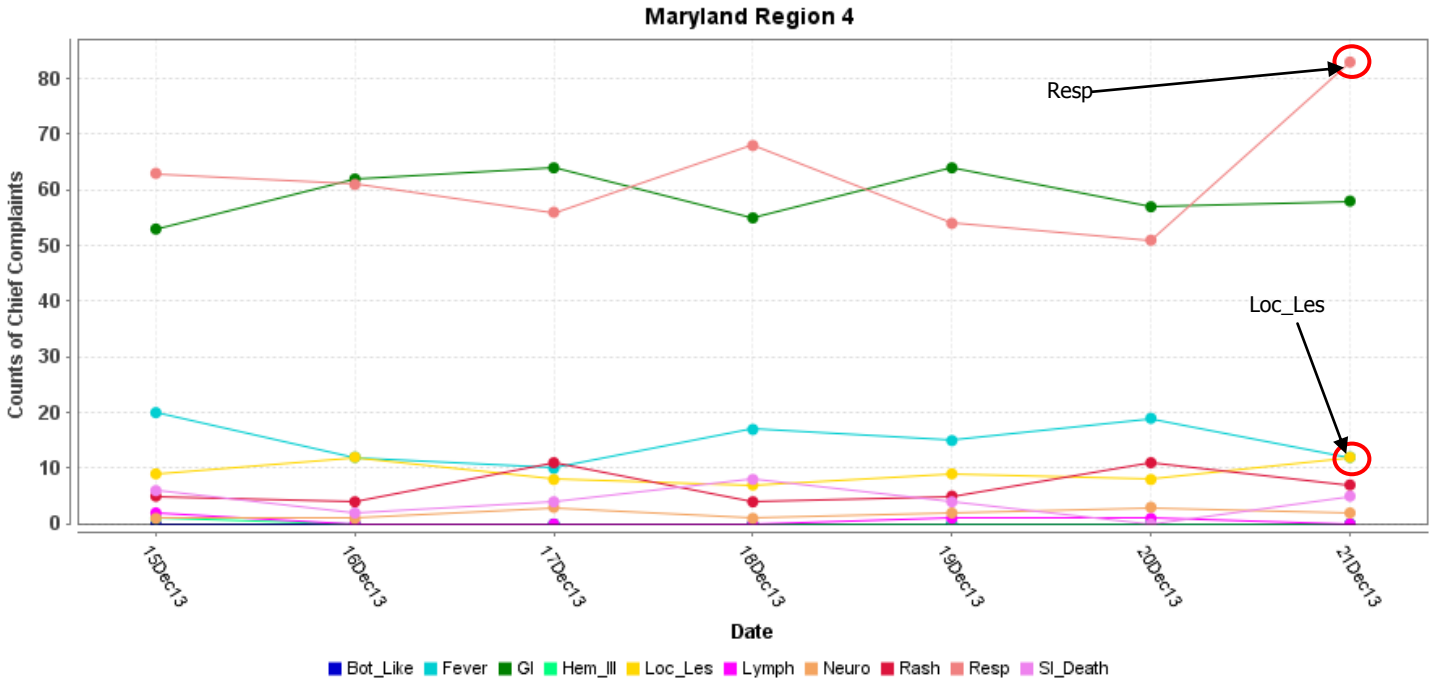
MARYLAND ESSENCE:



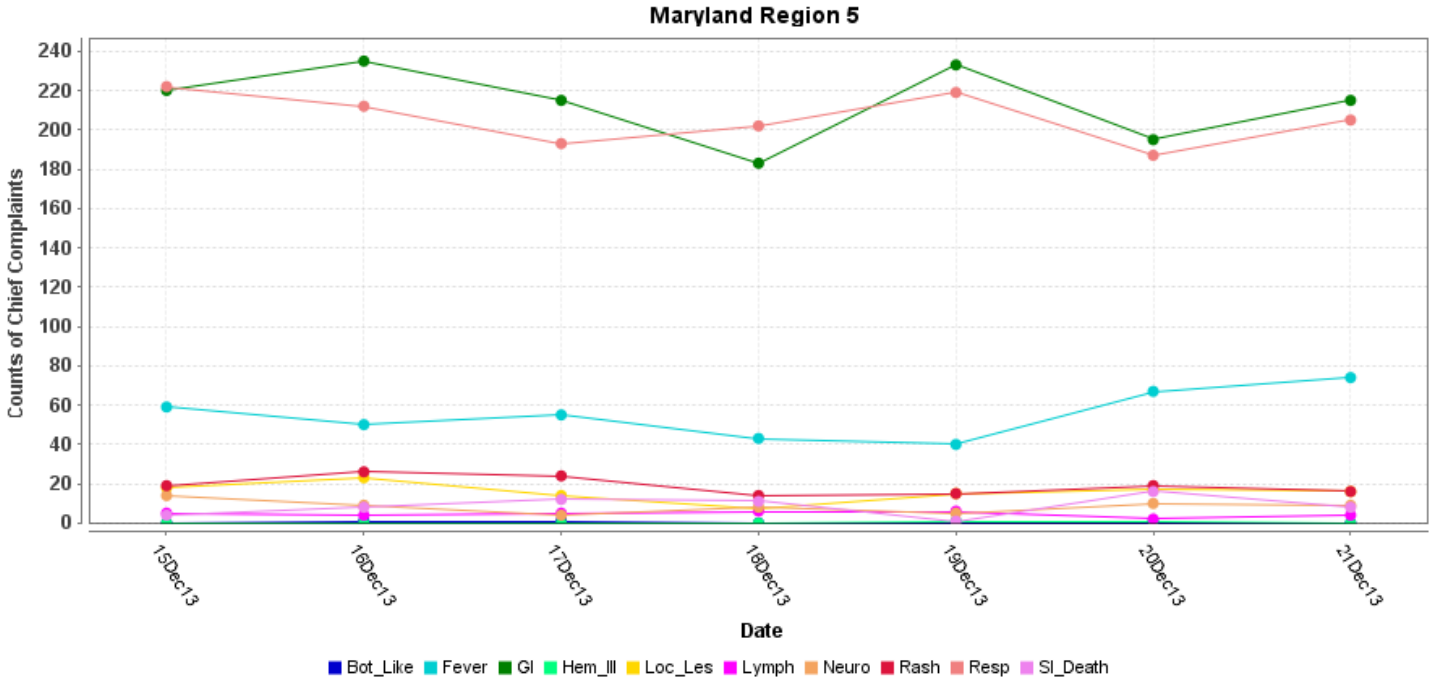
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore City, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



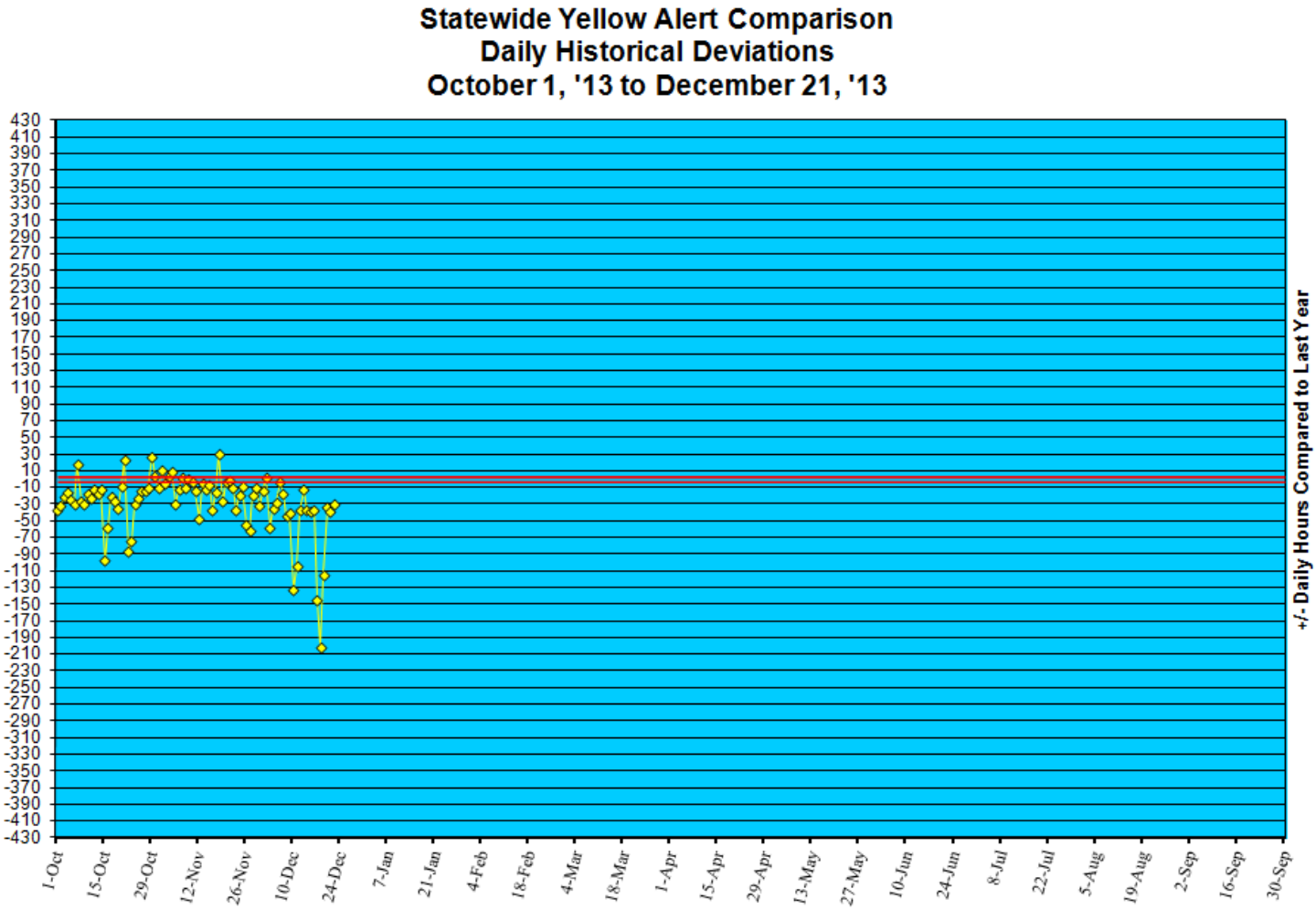
* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE



* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/13.



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in November 2013 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	**Aseptic**	**Meningococcal**
New cases (December 15 - December 21, 2013):	8	0
Prior week (December 8 - December 14, 2013):	12	0
Week#51, 2012 (December 17 – December 23, 2012):	4	0

5 outbreaks were reported to DHMH during MMWR Week 51 (December 15 - December 21, 2013)

3 Gastroenteritis Outbreaks
2 outbreak of GASTROENTERITIS in Nursing Homes
1 outbreak of GASTROENTERITIS in an Assisted Living Facility

2 Respiratory Illness Outbreaks
1 outbreak of ILI in a Nursing Home
1 outbreak of LEGIONELLOSIS in a Nursing Home

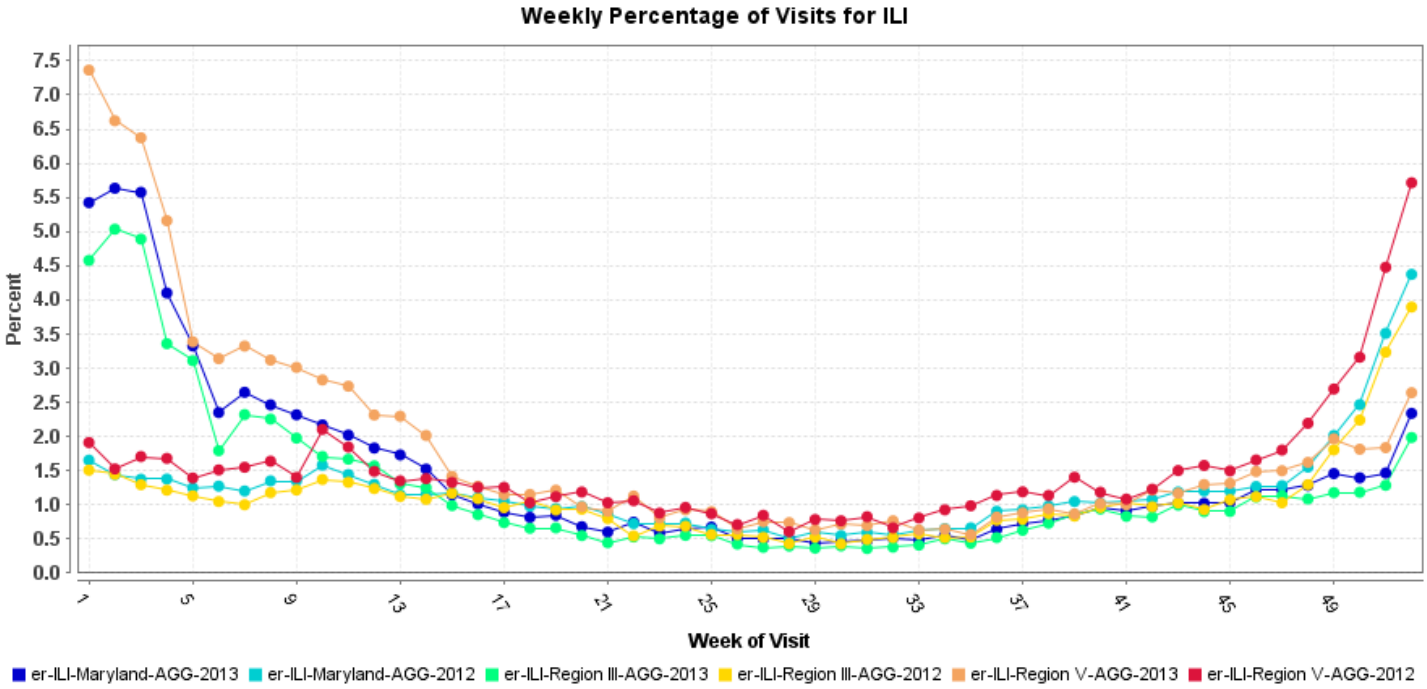
MARYLAND SEASONAL FLU STATUS

Seasonal Influenza reporting occurs October through May. Seasonal influenza activity for Week 51 was: Local Spread with Minimal Intensity

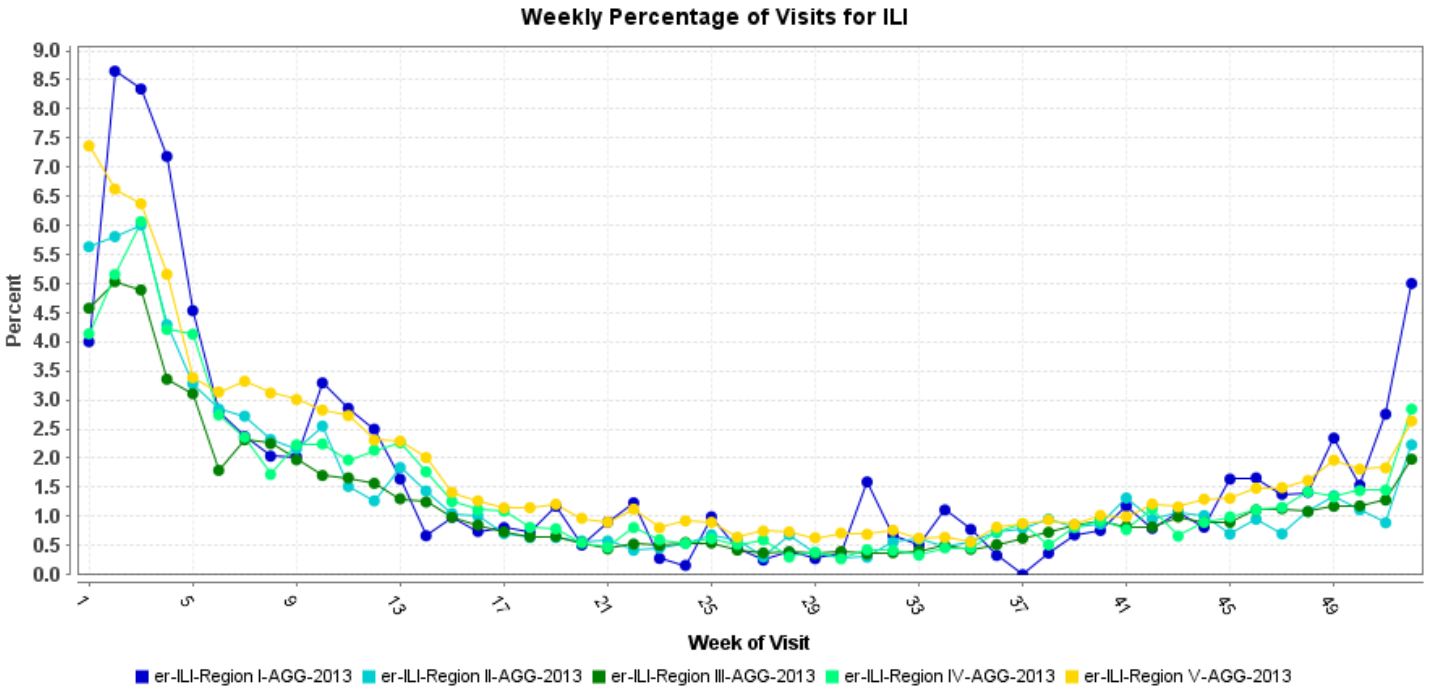
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



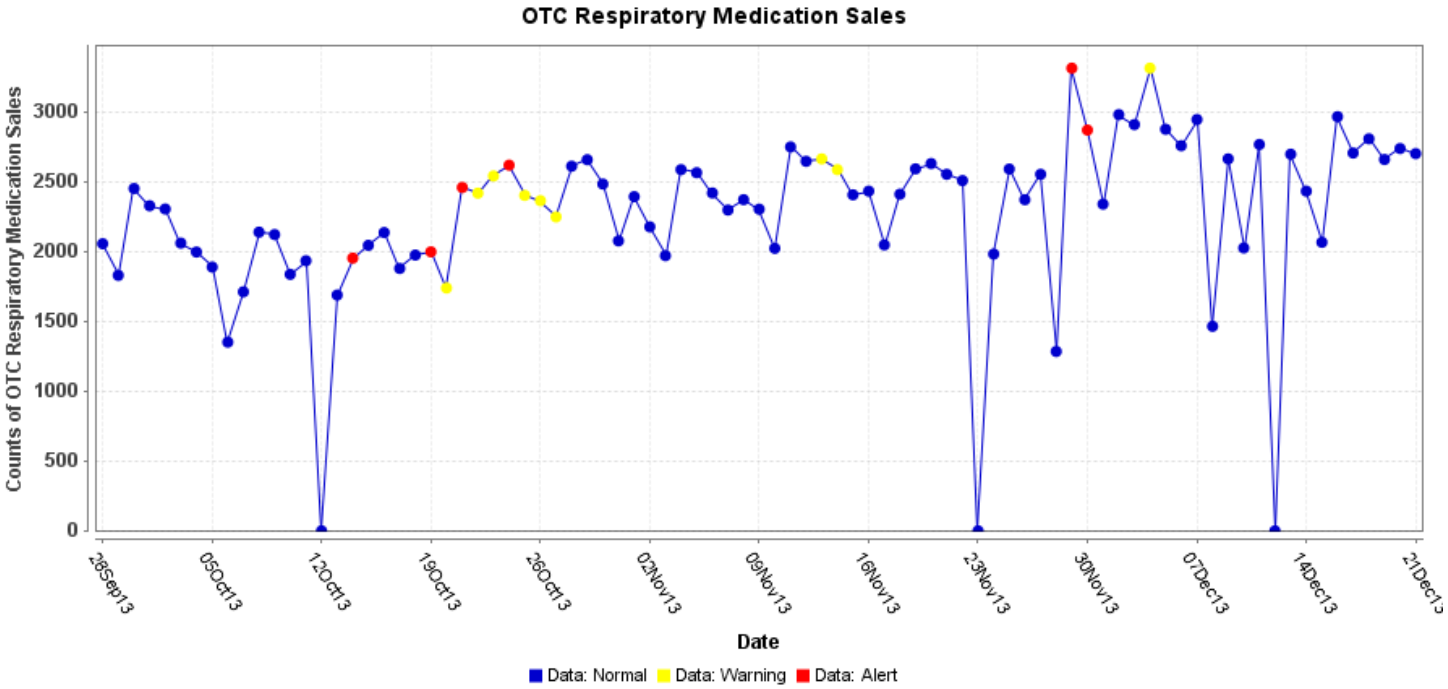
* Includes 2012 and 2013 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2013 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO update: The current WHO phase of pandemic alert for avian influenza is ALERT. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

Influenza A (H7N9) is one of a subgroup of influenza viruses that normally circulate among birds. Until recently, this virus had not been seen in people. However, human infections have now been detected. As yet, there is limited information about the scope of the disease the virus causes and about the source of exposure. The disease is of concern because most patients have been severely ill. There is no indication thus far that it can be transmitted between people, but both animal-to-human and human-to-human routes of transmission are being actively investigated.

Alert phase: This is the phase when influenza caused by a new subtype has been identified in humans. Increased vigilance and careful risk assessment, at local, national and global levels, are characteristic of this phase. If the risk assessments indicate that the new virus is not developing into a pandemic strain, a de-escalation of activities towards those in the interpandemic phase may occur. As of December 10, 2013, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 648, of which 384 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 59%.

INFLUENZA (H1N1): Health officials say there have been 6 confirmed deaths from H1N1 [influenza virus infection] in the Houston area recently, KHOU 11 News confirmed on Thursday afternoon [19 Nov 2013]. That includes the 4 deaths at Conroe Regional Medical Center. At least 14 people have become critically ill in Harris, Montgomery, and Jefferson counties, including the 4 patients at Conroe Regional Medical Center. This is the same strain of H1N1 that caused a pandemic in 2009. Doctors have been seeing hundreds of new cases recently in Texas and nationwide. In fact, H1N1 is one of the viruses included in this year's [2013] flu shot. Health officials from all over the region spent Thursday afternoon in a conference call comparing notes about all the cases. They suspect that all of the cases at the Conroe Regional Medical Center are H1N1, or what used to be called the "swine flu." Officials in Montgomery County, which is where this all started, are meeting to formulate further plans. All the jurisdictions in the region are working together to create a profile of these cases, so doctors know what to look out for. That will be shared with the Centers for Disease Control and Prevention (CDC) and the Texas Department of Health. CDC has already offered assistance on this cluster of cases. The illnesses started with flu-like symptoms, then progressed to pneumonia and, in some cases, organ failure. All of the patients initially tested negative for the flu. News about the illness has people packing into doctors' offices and clinics. At the Conroe Urgent Care Clinic Thursday [19 Dec 2013], at least 18 patients came in with flu-like symptoms. "We're testing at least 5 to 7 people positive for H1N1 [daily] as opposed to October [2013] when we hardly had any," said physician assistant Derrick Goodwill. The commonly used rapid flu test is not very reliable. "The recommendation right now is to give Tamiflu to patients even if they don't test positive," Goodwill said. That is also why Montgomery County health officials now plan to use a more reliable, but costly and time-consuming test on those patients sick from the "mystery" bug and those who died from it.

AVIAN INFLUENZA, HUMAN (H7N9): On 15 and 16 Dec 2013, the National Health and Family Planning Commission, China, notified WHO of 2 new laboratory-confirmed cases of human infection with avian influenza A(H7N9) virus. The 1st patient is a 39 year old man from Guangdong Province. He became ill on 6 Dec 2013 and was admitted to hospital on 11 Dec 2013. He is currently in critical condition. The 2nd patient is a 65 year old woman from Guangdong Province. She was exposed to live poultry and became ill on 11 Dec 2013 and was admitted to hospital on 15 Dec 2013. She is currently in critical condition. So far, there is no evidence of sustained human-to-human transmission. The Chinese government continues to take the following surveillance and control measures:
- strengthen surveillance and situation analysis;
- reinforce case management and treatment;
- conduct risk communication with the public and release information;
- strengthen international collaboration and communication; and
- conduct scientific studies.

WHO does not advise special screening at points of entry with regard to this event, nor does it currently recommend any travel or trade restrictions.

AVIAN INFLUENZA, HUMAN (H10N8): The [Hong Kong] Centre for Health Protection (CHP) of the Department of Health (DH) today (17 Dec 2013) received notification from the National Health and Family Planning Commission (NHFPC) of a human fatal case of avian influenza A (H10N8) affecting a woman aged 73 in Jiangxi. The immunocompromised patient with underlying illnesses was admitted to a local hospital on 30 Nov (2013) for treatment. Her clinical diagnosis was severe pneumonia and she passed away on 6 Dec (2013). According to the relevant authority, the patient had visited a local live poultry market. Her home and close contacts, who are under medical surveillance, have remained asymptomatic and no abnormalities have been found so far. "Influenza A(H10) is currently not a local statutorily notifiable infectious disease but the Public Health Laboratory Services Branch of the CHP is capable of detecting this virus by culture or genetic testing. No confirmed human cases have been recorded so far in Hong Kong," a spokesman for the CHP said. The CHP will follow-up with the World Health Organization (WHO) and the mainland health authorities to obtain more information on the case. "Locally, enhanced disease surveillance, port health measures and health education against avian influenza have been proceeding. We will remain vigilant and maintain liaison with the WHO and relevant health authorities. Local surveillance activities will be modified upon the WHO's recommendations," the spokesman remarked. All border control points have implemented disease prevention and control measures. Suspected cases of infectious disease will be immediately referred to public hospitals for follow-up investigation. The spokesman urged travellers not to visit live poultry markets and avoid direct contact with poultry, birds and their droppings during travel. If contact has been made, they should thoroughly wash their hands with soap and water. If fever or respiratory symptoms develop, they should immediately wear facial masks, seek medical attention and reveal their travel history to doctors. Members of the public should remain vigilant and are reminded to take heed of the following preventive advice against avian influenza:
- poultry and eggs should be thoroughly cooked before eating;
- wash hands frequently with soap, especially before touching the mouth, nose or eyes, handling food or eating; after going to the toilet or touching public installations or equipment such as escalator handrails, elevator control panels or door knobs; or when hands are dirtied by respiratory secretions after coughing or sneezing;
- cover the nose and mouth while sneezing or coughing, and hold the spit with a tissue and put it into a covered dustbin;
- Avoid crowded places and contact with fever patients; and
- wear a mask when respiratory symptoms develop or when taking care of fever patients.

The public may visit the CHP's avian influenza page (www.chp.gov.hk/en/view_content/24244.html) and its website (www.chp.gov.hk/files/pdf/global_statistics_avian_influenza_e.pdf) for more information on avian influenza-affected areas.

NATIONAL DISEASE REPORTS*

BOTULISM (TEXAS): 18 December 2013, Local, federal and state agencies continue to investigate the Amarillo [Texas] botulism outbreak, with lab tests continuing despite negative results. But they think the tainted food involved was not from a public source. "It can be difficult because of the time delay between the onset of symptoms and when the samples were shipped. The toxin may be in such small amounts, it's hard to detect," said Deree Duke, head of the city's environmental health department. "It's been clinically confirmed. All the experts across the country confirmed the diagnosis." Botulism is caused by a toxin released by a bacterium [Clostridium botulinum]. It can cause a paralysis that moves from the head downward. It can affect the diaphragm, stopping a victim from breathing, according to information from the CDC. There are an average of 145 cases reported in the USA annually. The apparent cause of the botulism cases is homemade food called turshi, a traditional Middle Eastern dish of fermented vegetables. "Investigators believe that during the fermentation phase of preparation lasting several weeks, conditions were ideal for bacteria growth and botulinum toxin production," according to a news release. "No commercial food product or restaurant has been linked to the outbreak. No new cases have been added to the outbreak of 4, and there is no reason to believe this contaminating product is a threat to the general public." Health care workers reported the 1st case 9 Dec 2013, and an investigation found the other victims who knew each other. Two patients are still in a local hospital. "One remained on a ventilator this afternoon," Duke said. "My understanding is it will be removed in the near future." Officials said the outbreak is not a public health threat. "It is also important to note that commercially available turshi was not implicated in the investigation," the release states. (Botulism is listed in Category A on the CDC List of Critical Biological Agents) *non-suspect case

INTERNATIONAL DISEASE REPORTS*

MERS-COV (SAUDI ARABIA): 21 December 2013, In the context of current epidemiological investigation and ongoing follow-up of cases of the severe acute respiratory syndrome caused by MERS-CoV infections, the Ministry of Health reports 4 new cases of the infection. The 1st and 2nd new cases are individuals working in the health sector, who have no symptoms of the infection, but are providing care for the 3rd case who has symptoms of the disease. This 3rd symptomatic patient is 53 years of age and is suffering from several chronic disease and is under intensive care. The 4th case is 73 years old and had been suffering from several chronic diseases. This patient has passed away. (Emerging Infectious Diseases are listed in Category C on the CDC List of Critical Biological Agents) *Non-suspect case

MERS-COV (DUBAI): 21 December 2013, Another patient suffering from Middle East respiratory syndrome coronavirus [MERS-CoV] has been identified in Dubai [United Arab Emirates]. An elderly Emirati man was taken to hospital after displaying "symptoms of the SARS-like virus", Dubai Health Authority confirmed on Friday [20 Dec 2013], the state news agency WAM reported. The 68 year old patient, who is in the intensive care unit, suffers from diabetes and chronic kidney failure. The health authority is working with the Ministry of Health and other authorities and has "taken necessary precautionary measures consistent with international recommendations and standards set out by the World Health Organization (WHO), including epidemiological investigations for those in touch with the patient", WAM reported. Last month [November 2013], a Jordanian man, his wife and their 8 year old son were also confirmed as having the virus. The family, who lives in Abu Dhabi, were taken to hospital for treatment. The 32 year old mother, who was 8 months pregnant, died shortly after giving birth via caesarean section. The Health Authority Abu Dhabi said her 38 year old husband and son were stable. The newborn, close family members, and health care workers were being monitored. WHO's emergency committee held a meeting on 4 Dec 2013 during which the committee called for countries to strengthen their surveillance. The next meeting is due in March [2014]. "WHO also stressed that the virus is not a concern for public health at the moment and that the current situation does not require a travel ban to any country in the world, screenings at different ports, or any restrictions on trade," WAM said. According to a 17 Dec 2013 bulletin from WHO, from September last year [2012] to date, "the organisation has been informed of a total of 165 laboratory-confirmed cases of infection with MERS-CoV, including 71 deaths." (Emerging Infectious Diseases are listed in Category C on the CDC List of Critical Biological Agents) *Non-suspect case

PLAGUE (PERU): 20 December 2013, According to official information, confirmed cases of pneumonic plague in La Libertad region rose to 5 and among those infected are a medical doctor and a child of 9 years. In addition, the Regional Health Directorate is evaluating another 3 suspected cases in the area of Elache in the district of Casa Grande. An elderly couple from Campina Cariaga, Chocope district, Ascope province, were also diagnosed with this infection. The 60 year old woman remains in the Regional Hospital, while her 78 year old husband is in isolation at home and receiving outpatient care. The regional health director, Jose Evangelista, reported that the 36 year old doctor was infected while intubating one patient. The child was bitten by a flea at his home in Campina Cariaga. The 5th case is a 17 year old who died of septicemic plague. (Plauge is listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

CIGUATERA FISH POISONING (SPAIN): 16 December 2013, The service of epidemiology and prevention of the Directorate General for Public Health of the Canary Islands government is investigating the emergence of 10 cases of people who may have ciguatera poisoning related to fish consumption in San Bartolome. None of those affected by this outbreak required hospital admission, but some were treated in emergency services. The cases had digestive symptoms such as vomiting, diarrhea and abdominal pain and, subsequently, paresthesia, paradoxical sensations and muscle aches. The presence of fish containing the ciguatera toxin has a greater impact on the islands of Lanzarote and Fuerteventura where larger reef fish can be caught. Ciguatera is found in tropical and subtropical seas, in areas of coral reefs. Ciguatera poisoning can occur after the ingestion of any of the more than 400 species of fish in the tropical reefs, where plankton may produce ciguatoxin, accumulating in the flesh of the marine animal. The larger, older fish are more toxic. The flavor of the fish is not altered, and there is no known method of freezing or cooking them that protects from poisoning. Symptoms appear from one to several hours after ingestion. The characteristic illness lasts about 8 days in most cases. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

National and International Disease Reports are retrieved from http://www.promedmail.org/.

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://preparedness.dhmh.maryland.gov/

Maryland's Resident Influenza Tracking System: http://dhmh.maryland.gov/flusurvey

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NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail us. If you have information that is pertinent to this notification process, please send it to us to be included in the routine report.

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Table: Text-based Syndrome Case Definitions and Associated Category A Conditions

Syndrome	Definition	Category A Condition
Botulism-like	ACUTE condition that may represent exposure to botulinum toxin ACUTE paralytic conditions consistent with botulism: cranial nerve VI (lateral rectus) palsy, ptosis, dilated pupils, decreased gag reflex, media rectus palsy. ACUTE descending motor paralysis (including muscles of respiration) ACUTE symptoms consistent with botulism: diplopia, dry mouth, dysphagia, difficulty focusing to a near point.	Botulism
Hemorrhagic Illness	SPECIFIC diagnosis of any virus that causes viral hemorrhagic fever (VHF): yellow fever, dengue, Rift Valley fever, Crimean-Congo HF, Kyasanur Forest disease, Omsk HF, Hantaan, Junin, Machupo, Lassa, Marburg, Ebola ACUTE condition with multiple organ involvement that may be consistent with exposure to any virus that causes VHF ACUTE blood abnormalities consistent with VHF: leukopenia, neutropenia, thrombocytopenia, decreased clotting factors, albuminuria	VHF
Lymphadenitis	ACUTE regional lymph node swelling and/ or infection (painful bubo- particularly in groin, axilla or neck)	Plague (Bubonic)
Localized Cutaneous Lesion	SPECIFIC diagnosis of localized cutaneous lesion/ ulcer consistent with cutaneous anthrax or tularemia ACUTE localized edema and/ or cutaneous lesion/ vesicle, ulcer, eschar that may be consistent with cutaneous anthrax or tularemia INCLUDES insect bites EXCLUDES any lesion disseminated over the body or generalized rash EXCLUDES diabetic ulcer and ulcer associated with peripheral vascular disease	Anthrax (cutaneous) Tularemia
Gastrointestinal	ACUTE infection of the upper and/ or lower gastrointestinal (GI) tract SPECIFIC diagnosis of acute GI distress such as Salmonella gastroenteritis ACUTE non-specific symptoms of GI distress such as nausea, vomiting, or diarrhea EXCLUDES any chronic conditions such as inflammatory bowel syndrome	Anthrax (gastrointestinal)

Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents
(continued from previous page)

Syndrome	Definition	Category A Condition
Respiratory	ACUTE infection of the upper and/ or lower respiratory tract (from the oropharynx to the lungs, includes otitis media) SPECIFIC diagnosis of acute respiratory tract infection (RTI) such as pneumonia due to parainfluenza virus ACUTE non-specific diagnosis of RTI such as sinusitis, pharyngitis, laryngitis ACUTE non-specific symptoms of RTI such as cough, stridor, shortness of breath, throat pain EXCLUDES chronic conditions such as chronic bronchitis, asthma without acute exacerbation, chronic sinusitis, allergic conditions (Note: INCLUDE *acute exacerbation* of chronic illnesses.)	Anthrax (inhalational) Tularemia Plague (pneumonic)
Neurological	ACUTE neurological infection of the central nervous system (CNS) SPECIFIC diagnosis of acute CNS infection such as pneumoccocal meningitis, viral encephailitis ACUTE non-specific diagnosis of CNS infection such as meningitis not otherwise specified (NOS), encephailitis NOS, encephalopathy NOS ACUTE non-specific symptoms of CNS infection such as meningismus, delerium EXCLUDES any chronic, hereditary or degenerative conditions of the CNS such as obstructive hydrocephalus, Parkinson's, Alzheimer's	Not applicable
Rash	ACUTE condition that may present as consistent with smallpox (macules, papules, vesicles predominantly of face/arms/legs) SPECIFIC diagnosis of acute rash such as chicken pox in person > XX years of age (base age cut-off on data interpretation) or smallpox ACUTE non-specific diagnosis of rash compatible with infectious disease, such as viral exanthem EXCLUDES allergic or inflammatory skin conditions such as contact or seborrheaic dermatitis, rosacea EXCLUDES rash NOS, rash due to poison ivy, sunburn, and eczema	Smallpox
Specific Infection	ACUTE infection of known cause not covered in other syndrome groups, usually has more generalized symptoms (i.e., not just respiratory or gastrointestinal) INCLUDES septicemia from known bacteria INCLUDES other febrile illnesses such as scarlet fever	Not applicable

Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents (continued from previous page)

Syndrome	Definition	Category A Condition
Fever	ACUTE potentially febrile illness of origin not specified INCLUDES fever and septicemia not otherwise specified INCLUDES unspecified viral illness even though unknown if fever is present EXCLUDE entry in this syndrome category if more specific diagnostic code is present allowing same patient visit to be categorized as respiratory, neurological or gastrointestinal illness syndrome	Not applicable
Severe Illness or Death potentially due to infectious disease	ACUTE onset of shock or coma from potentially infectious causes EXCLUDES shock from trauma INCLUDES SUDDEN death, death in emergency room, intrauterine deaths, fetal death, spontaneous abortion, and still births EXCLUDES induced fetal abortions, deaths of unknown cause, and unattended deaths	Not applicable